

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
30 October 2003 (30.10.2003)

PCT

(10) International Publication Number  
WO 03/090209 A1

(51) International Patent Classification<sup>7</sup>: G10L 19/14

(21) International Application Number: PCT/IB02/01228

(22) International Filing Date: 22 April 2002 (22.04.2002)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): NOKIA CORPORATION [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).

(72) Inventor; and

(75) Inventor/Applicant (for US only): HEIKKINEN, Ari [FI/FI]; Tohlopinranta 23 B 10, FIN-33270 Tampere (FI).

(74) Agent: KURIG, Thomas; Becker, Kurig, Straus, Bavariastrasse 7, 80336 München (DE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

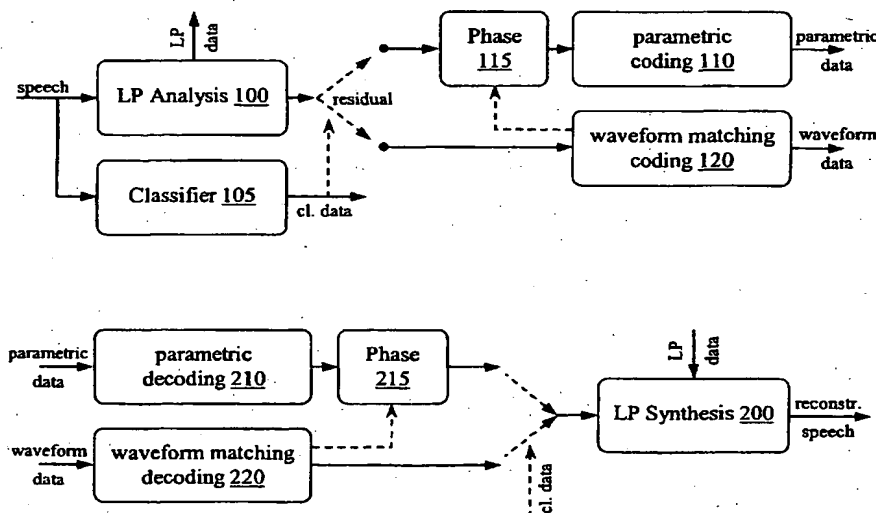
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND DEVICE FOR OBTAINING PARAMETERS FOR PARAMETRIC SPEECH CODING OF FRAMES



(57) Abstract: This invention provides a novel meethod for ensuring the phase continuity in transitions from a frmæ coded by a waveform matching coder to a frame coded using a parametric speech coder in hybrid speech coders. In the proposed mæthod, a phase estimate is derived from a reconstructed excitation signal of a linear prediction (LP) analysis. For the succeeding frame modeled by a parametric coder, conventional methods are then used for interpolation of the phase characteristic. By using the proposed method discontinuities due to phase errors are avoided in the reconstructed speech signal. Further, the invention provides a method for detecting misalignments of succeding coded by waveform matching speech coding and parametric speech coding. Additionally, communication terminals, a network device and a system are introduced which are able to operate the presented methods.

WO 03/090209 A1